21U368S (Pages: 2) Name: ……

Reg. No: ……

THIRD SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2022

(Supplementary/Improvement)

CC18U GEC3 PC09 - PROBLEM SOLVING USING 'C'

(Information Technology)

(2018 to 2020 Admissions)

Time: Three Hours Maximum: 80 Marks

PART A

Answer all questions. Each question carries 1 mark.

1. All keywords in C are in _____ letters.
2. _____ is the father of C language.
3. The C-preprocessors are specified with _____ symbol.
4. scanf() is a predefined function in _____ header file.
5. _____ function is used to output and print text.
6. Array index start with _____
7. _____ operator can be used to compare two values.
8. When a function calls itself again and again, it is called _____
9. A _____ is a variable that can hold the memory address of another variable.
10. The size of a String variable is _____

(10 × 1 = 10 Marks)

Part B

Answer any ***eight*** questions. Each question carries 2 marks.

11. Define trigraph characters in C
12. Differentiate between Keyword and Identifier.
13. What is typedef? Explain with an example.
14. What is comma (',') and size of operator?
15. What is operator precedence and associativity? Explain.
16. Give the syntax and function of do…while loop.
17. What is the difference between gets and scanf input functions?
18. Explain briefly the defining and opening a file.
19. What is pointer? How it is declared and accessed in C language?
20. What is Union? Explain the C syntax of union declaration.
21. What are register variables?
22. Distinguish between actual and formal arguments.

(8 × 2 = 16 Marks)

Part C

Answer any ***six*** questions. Each question carries 4 marks.

23. What are constants? How are they classified? Explain.
24. Explain the evaluation of expressions. What are the rules for evaluation of expression?
25. Explain type conversions in expression.
26. Explain the input and output statements used in C.
27. Write the general syntax and working of switch statement in C language.
28. Explain function call, function definition and function prototype with examples.
29. What do you mean by scope of a variable? Differentiate between local and global variables with example.
30. Compare pointers and character strings with example.
31. What is meant by dynamic memory allocation? Explain various memory allocation functions.

(6 × 4 = 24 Marks)

Part D

Answer any ***two*** questions. Each question carries 15 marks.

32. a) Explain the basic structure of C programs with example. (5 Marks)
    b) What are the different data types used in C? Explain each. (10 Marks)
33. a) Write notes on (i) One dimensional array; (ii) Two dimensional array;
    (iii) Multidimensional array with suitable example. (10 Marks)
    b) Write a program to find the product of matrices of order m × n. (5 Marks)
34. a) Explain different string handling functions in C. (10 Marks)
    b) Explain the different types of if statement. (5 Marks)
35. a) Explain different input/output operations on files. (7 Marks)
    b) Explain array of structure and structure within a structure with an example. (8 Marks)

(2 × 15 = 30 Marks)

****